APR 11 1983

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cc: Chuck McAbee
Roy Fulton
~~Lee Molho~~

Chuck;
Sift through all these to guarantee
we have taken proper measures.

Tnt Ron

Jaye Saha
Mattel Electronics
5150 Rosecrans Av.
Hawthorne, CA 90250

Dear Ms. Saha:

Thank you for designing-in the TMS320 and TMS7000 into your next generation product. I would like to take this opportunity to summarize the questions or concerns you have directed to us in Houston on the TMS320 and review our response. I want to make sure that we are both on the same track to avoid any possible future misunderstandings.
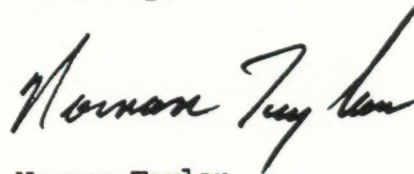
p.6-2 — not a signal, just a timing. No # on it.

1. Signal called tdcmc - This signal will not be specified in the future data manual. A copy of this manual will be provided to Mattel when available.

2. Section 3.3.4 of the Preliminary TMS320 Data Manual - Please be careful when using WE to detect an out instruction because a TBLW below address 8 will look the same.

We should have a FET input here.

capacitor

3. Section 14.1.1.1 Sigma Clock In of the Preliminary TMS320 Data Manual - (a) Do not DC load Pin X1. (This may result in unpredictable 320 operation. Insert a D.C. blocking character). (b) The results of a sample of 11 units of TMX products (not exemplary of final production version) indicated the AC signal at X1 was at least 3V peak to peak. (Most units exhibited 3.5 to 4.0V). This is valid only for a 20 MHz xtal. (c) Mattel will probably have to put this signal on a D.C. level themselves (resistor divider?). (d) The signal out of X1 is not a sine wave due to hysteresis effects, but the "zero crossing" points are similar to those of a sine-wave. The signal resembles a cross between a sine wave and a square wave (more square on the bottom).

4. A 40 ns "hold time data bus out valid after clock out" is the goal we are attempting to achieve. Due to the fact we do not have final silicon, it is not possible to guarantee this parameter at this time. However, we are optimistic that we can achieve this goal.

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If you have any questions on the above topics or any further questions or concerns about the TMS320, please feel free to call me at 713-879-2353. As soon as we have final silicon we will update you on the status of the above topics where we indicated that final silicon would produce a firm answer.

Sincerely,

Norman Taylor
Marketing Manager
Digital Signal Processors

NT:pa